

Ship NOV 29

Work Order ID 153176

153176

Page 1

Tuesday, November 08, 2016 3:29:15 PM

Item ID: 647.7306 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: EC135 T2/P2 Cable Cutters (Removable Provisions Only)
 Start Date: 11/9/2016 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 11/29/2016 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: VS (Signature) Date: 16/11/8 Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
647.7300	B1	NOV 09 2016							

100 DOCUMENT CONTROL 0.00
 100
 DC Memo 0.00
 Doc.Control -USB or Paperwork Photocopy bluefile & type labels per PPP 647.7306

(Signature)
 FEB 09 2017

110 Pick Kit 0.00
 110
 Packaging Memo 0.00
 Packaging

(Signature)
 FEB 09 2017

120 QC4- 100% Inspect kits for completeness 0.00
 120
 QC Memo 0.00
 Quality Control

(Signature)
 FEB 09 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Description Work Order Deviation		Disposition		Completed By																	
				Lead hand / Supervisor Approval Verification																	
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Root Cause		FAULT CATEGORY																			
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OTHER : _____																					

Work Order ID 153176

Tuesday, November 08, 2016 3:29:15 PM

153176

Page 2

Item ID: 647.7306

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: EC135 T2/P2 Cable Cutters (Removable Provisions Only)

Start Date: 11/9/2016 Start Qty: 1.00

1

Cust Item ID:

Required Date: 11/29/2016 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130	Packaging								
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP 647.7306 Location : FG109								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

DAS
27
9-89
FEB 0 9 2017DAS
21
9-89
FEB 0 9 2017DAS
21
9-89

FEB 0 9 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Picklist Print

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Page 1

Work Order ID: 153176

153176

Parent Item: 647.7306

647 7306

Parent Item Name: EC135 T2/P2 Cable Cutters (Removable Provisions Only)

Start Date: 11/9/2016

Required Date: 11/29/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 16.04.27 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

600.1012
600 1012
Sealant PR1425B2 (#654 sem)

Purchased

No

Each 16.0000

**

1

DAS
6
9-89

DAS
28
9-89

NOV 14 2016

Location

Loc Qty

Loc Code

cck017

16

m135407

1

m135600

5

m135840

10

136586
at 6130-2017
date

601.2045
601 2045
RTV (LOCTITE 598)

Purchased

No

Each 12.0000

**

1

135628

NOV 14 2016

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK096

4

m135628

4

GA

8

m134260

8

601.3011
601 3011
P-Seal

Manufactured

No

f 67.1000

**

1.4

NOV 14 2016

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK095

50

91709

50

CCK099

17.1

M130388

17.1

1.4

CUT AT 16.00"

Smb Exp Date
6-30-2017

Smb

Smb
11/16"

DQA: _____ Date: _____



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Work Order ID: 153176

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Parent Item: 647.7306

647 7306

Parent Item Name: EC135 T2/P2 Cable Cutters (Removable Provisions Only)

Start Date: 11/9/2016

Required Date: 11/29/2016

Start Qty: 1.00

Required Qty: 1.00

601.3902
601.3902
Eye Bolt

Manufactured No

Each 5.0000

**

NOV 14 2016

DAS 6 28 9-89

Location

Loc Qty

Loc Code

cck101

5

147212

5

Each

77.0000

**

NOV 14 2016

DAS 6 28 9-89

Location

Loc Qty

Loc Code

CCK107

77

150114

42

150895

15

151352

20

Each

1.0000

**

153186

DAS 6 28 9-89 DEC 16 2016

Location

Loc Qty

Loc Code

CCK048

1

146728

1

Each

2.0000

**

153186

DAS 6 28 9-89 DEC 14 2016

Location

Loc Qty

Loc Code

CCK033

2

147340

2

DAS 6 9-89

JAN 10 2017

153324 DEC 20 2016 JAN 03 2017

DAS 6 28 9-89

647.1404
647.1404
Upper Cutter Assembly

Manufactured No

Each 1.0000

**

153186

DAS 6 28 9-89 DEC 16 2016

Location

Loc Qty

Loc Code

CCK048

1

146728

1

Each

2.0000

**

153186

DAS 6 28 9-89 DEC 14 2016

Location

Loc Qty

Loc Code

CCK033

2

147340

2

DAS 6 9-89

JAN 10 2017

153324 DEC 20 2016 JAN 03 2017

DAS 6 28 9-89

647.1702
647.1702
Skid Deflector Assembly

Manufactured No

Each 2.0000

**

153186

DAS 6 28 9-89 DEC 14 2016

Location

Loc Qty

Loc Code

CCK033

2

147340

2

DAS 6 9-89

JAN 10 2017

153324 DEC 20 2016 JAN 03 2017

DAS 6 28 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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OTHER : _____					

Picklist Print

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Page 3

Work Order ID: 153176

153176

Parent Item: 647.7306

647 7306

Parent Item Name: EC135 T2/P2 Cable Cutters (Removable Provisions Only)

Start Date: 11/9/2016

Required Date: 11/29/2016

Start Qty: 1.00

Required Qty: 1.00

647.7501
• ***647 7501***
Lower Cutter Assembly

Manufactured No

Location

cck001

146726

Loc Qty

Each

1.0000

Loc Code

1

1

Each

3.0000

647.7701
• ***647 7701***
Strut Assembly

Manufactured No

Location

CCK114

146722

Loc Qty

3

3

Each

7.0000

647.7702
• ***647 7702***
Strut Assembly

Manufactured No

Location

CCK076

146723

Loc Qty

7

7

Each

38.0000

93635A212
• ***93635A212***
Bolt

Purchased No

Location

ST558

m134700

Loc Qty

38

38

Loc Code

155098

DAS 6 9-89

FEB 03 2017

DEC 14 2016

NOV 14 2016

DAS 28 9-89

JAN 13 2017

153625

NOV 14 2016

DAS 6 9-89
DAS 28 9-89

147297 JAN 16 2017

DAS 6 9-89

NOV 14 2016

DAS 6 9-89
DAS 28 9-89

NOV 14 2016

DAS 6 9-89
DAS 28 9-89

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Shop Packet Print

Page 3

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WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐						
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval ☐				
Description Work Order Deviation			Disposition					
						Completed By ☐		
						Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval ☐					

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date ☐	☐	Manufacturing Process	☐				
Misidentified ☐	☐	Past Due	☐				
				OTHER : _____			

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Work Order ID: 153176

153176

Parent Item: 647.7306

647 7306

Parent Item Name: EC135 T2/P2 Cable Cutters (Removable Provisions Only)

Start Date: 11/9/2016

Required Date: 11/29/2016

Start Qty: 1.00

Required Qty: 1.00

AN3-11A Purchased No Each 112.0000

AN3-11A

Bolt

**

Location	Loc Qty	Loc Code
over003	100	
m135767	100	
ST349	12	
m135390	12	

NOV 11 2016

DAS 28 9-89

DAS 6 9-89

AN316C4R Purchased No Each 21.0000

AN316C4R

Nut, Jam

**

Location	Loc Qty	Loc Code
ST331	21	
m133234	1	
m135840	20	

NOV 11 2016

DAS 6 9-89

DAS 28 9-89

AN44-12A Purchased No Each 26.0000

AN44-12A

Eyebolt

**

Location	Loc Qty	Loc Code
ST339	26	
124131	6	
124263	20	

NOV 11 2016

DAS 6 9-89

DAS 28 9-89

AN4C7A Purchased No Each 104.0000

AN4C7A

BOLT

**

Location	Loc Qty	Loc Code
OVER002	70	
m135864	70	
ST345	34	
m135470	34	

NOV 11 2016

DAS 6 9-89

DAS 28 9-89

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Page 4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause			FAULT CATEGORY		
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐ _____					

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Work Order ID: 153176

153176

Parent Item: 647.7306

647 7306

Parent Item Name: EC135 T2/P2 Cable Cutters (Removable Provisions Only)

Start Date: 11/9/2016

Required Date: 11/29/2016

Start Qty: 1.00

Required Qty: 1.00

AN665-34R

Purchased

No

Each

31.0000

4

AN665-34R

Clevis

**

NOV 14 2016

DAS 28
6 9-89
2-89

Smb

Location

Loc Qty

Loc Code

ST330

31

M135603

11

M135948

20

LN9025-0820K

Purchased

No

Each

8.0000

8

I N9025-0820K

Lock Tab Washer

**

NOV 15 2016
NOV 14 2016

DAS 6 DAS 28
6 9-89 9-89

Smb

Location

Loc Qty

Loc Code

ST563

8

M128007

8

LN9037-08018

Purchased

No

Each

0.0000

8

I N9037-08018

Screw

**

NOV 15 2016

DAS 6 DAS 28
6 9-89 9-89

Smb

MS21042-08

MS21042L08

Purchased

No

Each

0.0000

4

MS21042-08

USE MS21042L08

**

NOV 14 2016

DAS 6 DAS 28
6 9-89 9-89

Smb

MS21042-3

MS21042L3

Purchased

No

Each

0.0000

4

MS21042-3

Nut

**

NOV 14 2016

DAS 6 DAS 28
6 9-89 9-89

Smb

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Page 6

Work Order ID: 153176

153176

Parent Item: 647.7306

647 7306

Parent Item Name: EC135 T2/P2 Cable Cutters (Removable Provisions Only)

Start Date: 11/9/2016

Required Date: 11/29/2016

Start Qty: 1.00

Required Qty: 1.00

MS21042L08

Purchased

No

Each

1,060.000

MS21042L08

Nut

NOV 14 2016

DAS 28
6 9-89

Location

Loc Qty

Loc Code

GA

50

m135274

50

ST303

1010

m135672

10

m135766

200

m135948

300

m135978

500

MS21042L4

Purchased

No

Each

2,152.000

MS21042L4

Nut

NOV 14 2016

DAS 28
6 9-89

Location

Loc Qty

Loc Code

FP001

34

m133363

34

GA

204

m135058

204

OVER007

500

m135979

500

ST303

1414

m135704

46

m135774

368

m135864

1000

MS21266-2N

Purchased

No

Each

49.0000

MS21266-2N

Grommet

NOV 14 2016

DAS 28
6 9-89

Location

Loc Qty

Loc Code

ST294

49

123900

40

M130388

9

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;"></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval																	
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Root Cause		FAULT CATEGORY																			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																
OTHER : _____																					

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Work Order ID: 153176

153176

Parent Item: 647.7306

647 7306

Parent Item Name: EC135 T2/P2 Cable Cutters (Removable Provisions Only)

Start Date: 11/9/2016

Required Date: 11/29/2016

Start Qty: 1.00

Required Qty: 1.00

MS27039-08-13

Purchased

No

Each

80.0000

MS27039-08-13

Screw

**

NOV 14 2016

DAS 8 28 9-89

SMB

Location

Loc Qty

Loc Code

ST278

80

124326

80

Each

35.0000

**

NOV 14 2016

DAS 8 28 9-89

MS27039-08-27

Purchased

No

MS27039-08-27

Screw

SMB

Location

Loc Qty

Loc Code

ST277

35

m134702

35

Each

2,822.000

**

NOV 14 2016

DAS 8 28 9-89

NAS1149F0332P

Purchased

No

NAS1149F0332P

Washer

SMB

Location

Loc Qty

Loc Code

GA

276

m133709

276

ST260a

2000

m135948

2000

ST262

546

m135544

546

Each

1,371.000

**

NOV 14 2016

DAS 8 28 9-89

NAS1149F0432P

Purchased

No

NAS1149F0432P

WASHER

SMB

Location

Loc Qty

Loc Code

ST260a

1000

M135704

1000

ST262

371

M134955

371

12

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																													
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Tuesday, November 08, 2016 3:29:22 PM

Work Order ID: 153176

153176

Parent Item: 647.7306

647 7306

Parent Item Name: EC135 T2/P2 Cable Cutters (Removable Provisions Only)

Start Date: 11/9/2016

Required Date: 11/29/2016

Start Qty: 1.00

Required Qty: 1.00

NAS1149F0463P

Purchased

No

Each

660.0000

NAS1149F0463P

Washer

Smb

Location

Loc Qty

Loc Code

ST262

660

m127832

660

Each

2,430.000

NAS1149F0532P

Purchased

No

NAS1149F0532P

Washer

Smb

Location

Loc Qty

Loc Code

ST260a

600

m133725

600

ST262

1830

18057

1830

Each

1,519.000

NAS1149FN832P

Purchased

No

NAS1149FN832P

Washer

Smb

Location

Loc Qty

Loc Code

GA

1389

M133769

89

M135058

1300

ST263

130

M135603

130

NOV 14 2016
DAS 28
9-89

NOV 14 2016
DAS 28
9-89

NOV 14 2016
DAS 28
9-89

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																													
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						Completed By																																																																									
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APICAL INDUSTRIES, INC.
dba DART AEROSPACE

ENGINEERING CHANGE NOTICE NO.

05465

SHEET 1 OF 1

DWG NO. 647.7300

REV: B

PREPARED BY J. BECKER

DATE: 07/07/16

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: EC135 CABLE CUTTES KIT

APPROVED BY:

ENGR

MFG

QC

EFF.

NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: ADDED NOTE 10.

ECR: N/A

ACTION ITEM:

1.

SHEET 1, NOTE 10 IS:

NOTES: UNLESS OTHERWISE SPECIFIED

1 AFTER INSTALLATION, APPLY F/N 90 A/R TO FILL GAPS AND FILLET EDGES.

2 APPLY F/N 91 TO FAYING SURFACES.

3 DELETED.

4 MATCH DRILL HOLES THROUGH F/N 26 or F/N 98 AND FUSELAGE.

5 SHIM GAP BETWEEN F/N 1 & 26 AS NEEDED.

6 AT CUSTOMERS OPTION, INSTALL F/N 96 BY MATCH DRILLING ONTO F/N 1 FOR KIT P/N 647.7301 or F/N 99 FOR KIT P/N 647.7304.

7 647.7301 INSTALLATION FOR EC135.

8 647.7304 INSTALLATION FOR EC135 T2/P2.

9 EXCEPT WHERE NOTED, INSTALLATION FOR 647.7304 SAME AS 647.7301.

10 CUT LENGTH: 16 INCHES.

IS

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 153176

VIC
16/11/19

36	R	601.3011	1	1	1	1	1	1	P-SEAL		10	
F/N	TC	PART NUMBER	7306	7305	7304	7303	7302	7301	DESCRIPTION		MATERIAL	SPECIFICATION
QTY												
DOCUMENTS EFFECTED:												
☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM												
CHANGE CATEGORY						DER REVIEW REQUIRED						
☐ MAJOR ☒ MINOR						☐ YES ☒ NO						

9 EXCEPT WHERE NOTED, INSTALLATION FOR 647.7304 SAME AS 647.7301.

2			2			2	39	601.3120	EYE BOLT	AN44-12A
			2			2	38	601.3121	EYE BOLT	AN44-5A
1	1	1	1	1	1	1	37	601.3007	GROMMET	MS21266-2N
1	1	1	1	1	1	1	36	601.3011	P-SEAL	
	1	1			1	1	35	647.3201	GROUNDING CABLE ASSY	
			2	2	4	4	34	647.2511	NUT	
					4	4	33	647.2510	SLEEVE	
13	13			13	13	32	647.1812	SHIM		
2	2			2	2	31	647.1811	SPACER		
1	1			1	1	30	647.1602	DOUBLER ASSY		
1	1			1	1	29	647.1914	BRACKET		
1	1			1	1	28	647.7822	EYE BOLT FITTING RH		
1	1			1	1	27	647.7821	EYE BOLT FITTING LH		
				1	1	26	647.7818	MOUNTING CHANNEL		
				1	1	25	647.7820	CROSS BRACKET AFT		
1	1			1	1	24	647.7819	CROSS BRACKET FWD		
1	1			1	1	23	647.7918	BRACKET		
1	1			1	1	22	647.7917	BRACKET		
2	2			2	2	21	647.7916	BRACKET		
1	1			1	1	20	647.7915	BRACKET		
1	1			1	1	19	647.7914	BRACKET		
2	2			2	2	18	647.7913	DOUBLER		
4	4			4	4	17	647.7912	CLIP		
2	2			2	2	16	647.7911	BRACKET		
2	2			2	2	15	647.7910	ANGLE BRACKET		
4	4	4		4	4	14	647.0112	STRUT BRACKET		
1	1			1	1	13	647.1810	NOSE DOOR DOUBLER		
1	1			1	1	12	647.1818	NOSE DOOR SPACER		
2	2	2		2	2	11	647.7701	STRUT ASSY		
2	2	2		2	2	10	647.7702	STRUT ASSY		
1	1			1	1	9	647.1815	GUSSET, RH		
1	1			1	1	8	647.1814	GUSSET, LH		
1	1			1	1	7	647.1915	SUPPORT ANGLE		
1	1			1	1	6	647.1913	TEE		
1	1			1	1	5	647.1610	WIPER DEFLECTOR, FWD		
1	1			1	1	4	647.1601	WIPER DEFLECTOR ASSY, AFT		
		2		2	3	3	647.1701	SKID DEFLECTOR ASSY		
1	1	1		1	2	2	647.7501	LOWER CUTTER ASSY		
			1	1	1	1	647.7401	UPPER CUTTER ASSY		
X							647.7306	T2/P2 REMOVABLE PROVISIONS KIT		
X							647.7305	T2/P2 FIXED PROVISIONS KIT		
	X						647.7304	EC135 T2/P2 CABLE CUTTERS KIT		
		X					647.7303	REMOVABLE PROVISIONS KIT		
			X				647.7302	FIXED PROVISIONS KIT		
				X			647.7301	EC135 CABLE CUTTERS KIT		
7306	7305	7304	7303	7302	7301	END	PART #	DESCRIPTION	MAT'L	SPE

NO. 153176

$\frac{v_{ic}}{s_L}$ 16/11/8

DART 3030 ENTERPRISE CT.,
AEROSPACE SUITE A
APICAL INDUSTRIES, INC. VISTA, CA. 92081
609 DART AEROSPACE (760)-724-5300

EC135 CABLE CUTTERS KIT

EC135 CABLE CUTTERS KIT

SRI	CAGE CODE	DWG. NO.	
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Q	CAGE CODE	DWG. NO.
A	07M26	647.7300

SCALE NONE	SHEET 1 OF 1
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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

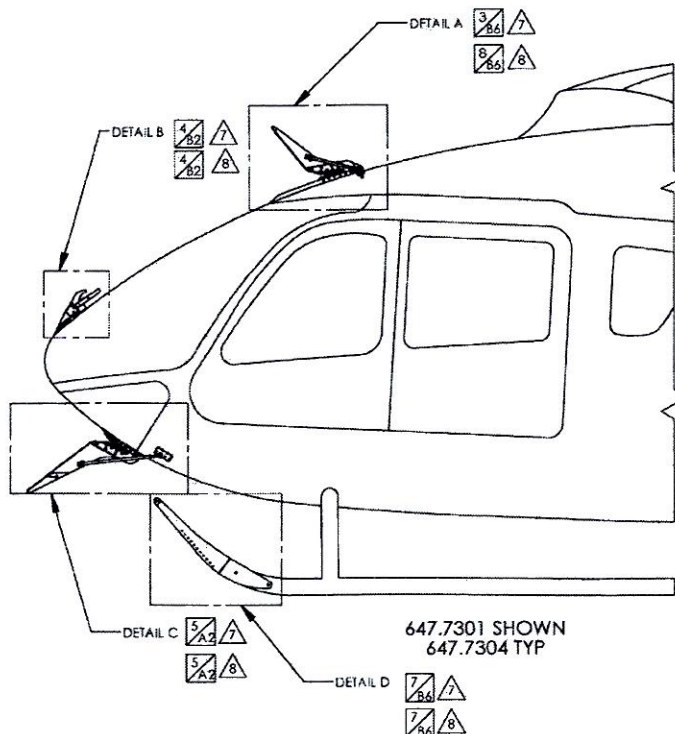
QA Closed: _____ Date: _____

Work Order update only ☐

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2	2				110	601.3902	EYE BOLT		
	2	2			109	601.2910	SCREW	MS27039-1-18	
4		4			108	601.3963	BOLT	95635A-212	
8		8			107	601.3654	BOLT	LN9025-08018	
8		8			106	601.3655	LOCK WASHER	LN9025-0800K	
2		2			105	647.1702	SKID DEFLECTOR ASSY		
	8	8		8	104	601.3214	CHERRY RIVET	CR3325-5-3	
	24	24		24	103	601.3213	CHERRY RIVET	CR3325-4-4	
	4	4		4	102	601.3212	CHERRY RIVET	CR3325-4-3	
5		5			101	601.1541	LOCKNUT	MS27040-08	
5		5			100	601.3962	SCREW	MS27039-0807	
1		1			99	647.1404	CUTTER ASSY (UPPER)		
	1	1			98	647.2114	UPPER U CHANNEL		
	1	1			97	647.7823	CROSS BRACKET AFT		
1		1	1	1	96	647.5701	GPS MOUNT KIT		
7306	7305	7304	7303	7302	7301	FIND #	PART #	DESCRIPTION	MAT'L SPEC

ORIGINAL DATE 11/24/09		3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760) 724-5300	
DRAWN BY A. QUAN	CHECKED D. SARKIS	DART AEROSPACE APICAL INDUSTRIES, INC. DBA DART AEROSPACE	
DRAWING APPROVAL P. BARTO 01/13/10			
CONTRACT NO.		EC135 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		REV B	2 OF 8

DQA: _____ Date: _____

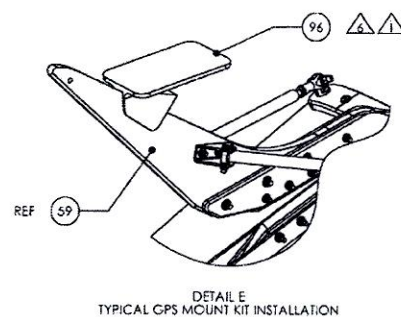


WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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			Completed By																		
			Lead hand / Supervisor Approval Verification																		
			QC / QA Coordinator Approval																		
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ORIGINAL DATE JMO-5A-767	11/2/90	 3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (602)-774-5300 APICAL INDUSTRIES, INC. 800-525-5445
DRAWN BY A. QUINN	CHECKED C. HARRIS	
DESIGNED APPROVAL P. BAIRD	DATE 11/2/90	
CONTRACT NO.		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES 1. PLACE DIMENSIONS ±.015 2. PLACE DIMENSIONS ±.010 ANGLES ± .5°		EC135 CABLE CUTTERS KIT SIZE: 2 1/2" CAGE-COLOR: DWG. NO: 647.370 REV: B SCALE: NONE SHEET: 3 OF 8

DQA: _____ Date: _____



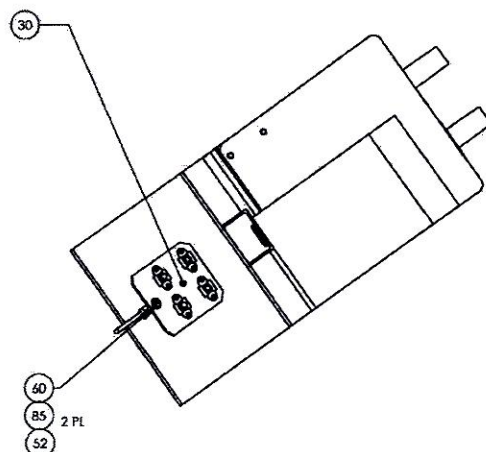
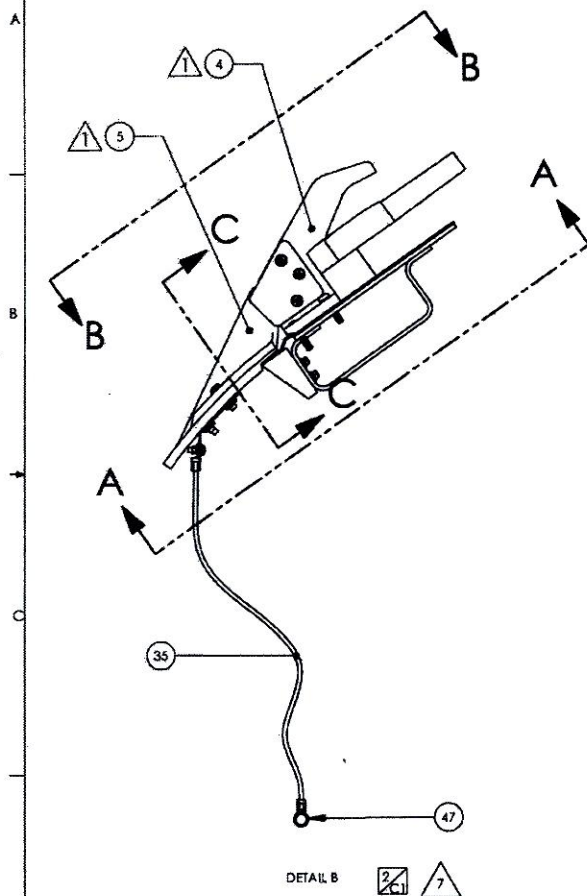
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

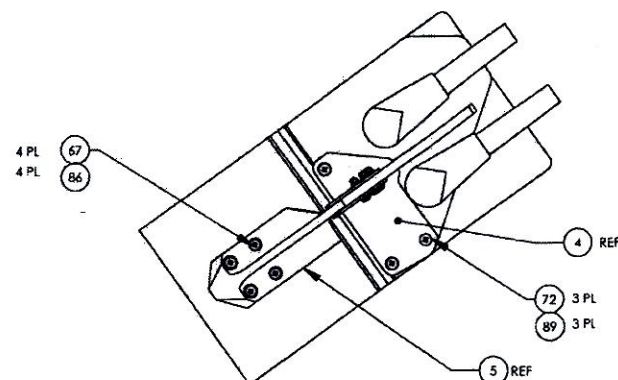
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																
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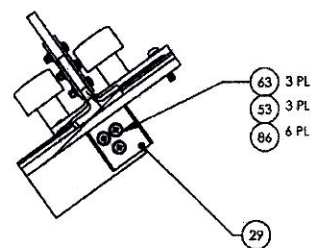
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SECTION A-A



SECTION B-B



SECTION C-C

ORIGINAL DATE (DD-MM-YY)		11/2008	
DRAWN BY A. GILAN		CHECKED BY D. BARKER	
DRAWING APPROVAL P. BELL			
QUANTITY			
CONTRACT No.			
DART 3030 ENTERPRISE CT., SUITE A AEROSPACE VISTA, CA. 92081 APICAL INDUSTRIES INC. (760)-724-5300 DBA DART AEROSPACE			
EC135 CABLE CUTTERS KIT			
REV.	DATE	BY	REV.
B	07/2016	DWG. NO.	647.7300
SCALE NONE		SHEET 4 OF 8	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

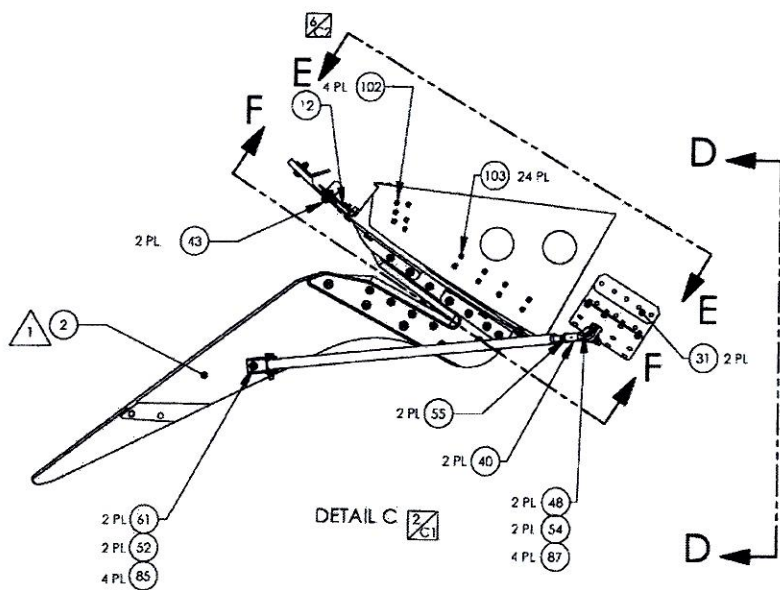
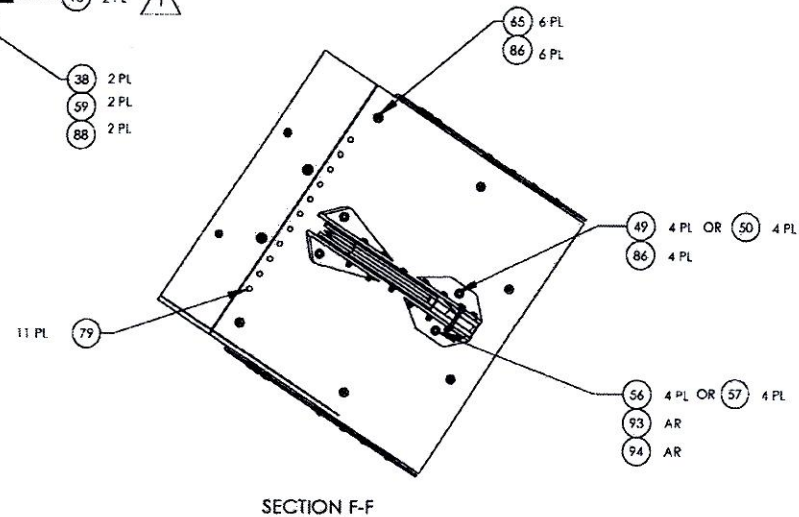
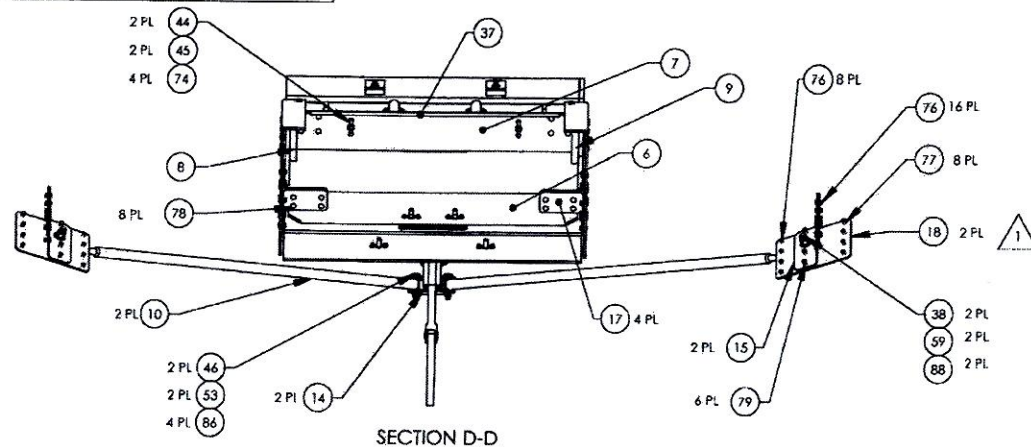
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;"></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date :	Step #:	QTY Effective :		MRB (QSI042) Approval																	
Description Work Order Deviation			Disposition																		
						Completed By															
						Lead hand / Supervisor Approval Verification															
			QC / QA Coordinator Approval																		
Root Cause			FAULT CATEGORY																		
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																
OTHER :																					

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ORIGINAL DATE 1/20/2019	1/20/2019	3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760)-724-5300	
DRAWN BY A. GUAN	CHECKED BY D. BARKER	DART AEROSPACE APCAL INDUSTRIES, INC. DBA DART AEROSPACE	
DRAWING APPROVAL P. WILSON 10/11/19		EC135 CABLE CUTTERS KIT	
CONTRACT NO.		REV: 8	REV: B
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS .001 3 PLACE DECIMALS .0005 ANGLES ± .5°		SCALE: NONE	SHEET 5 OF 8

DQA: _____ Date: _____



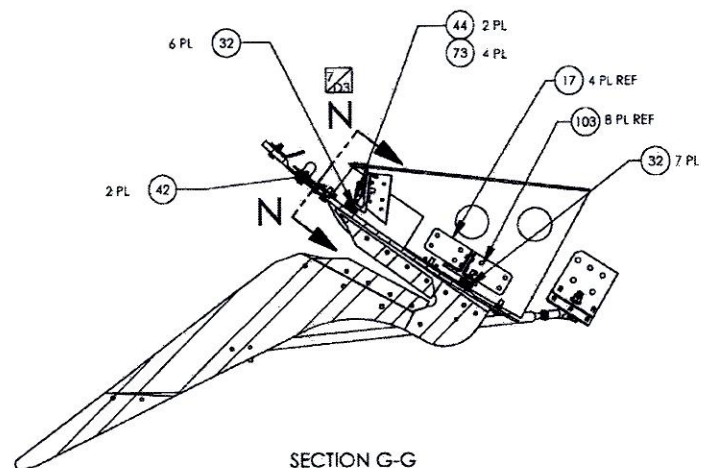
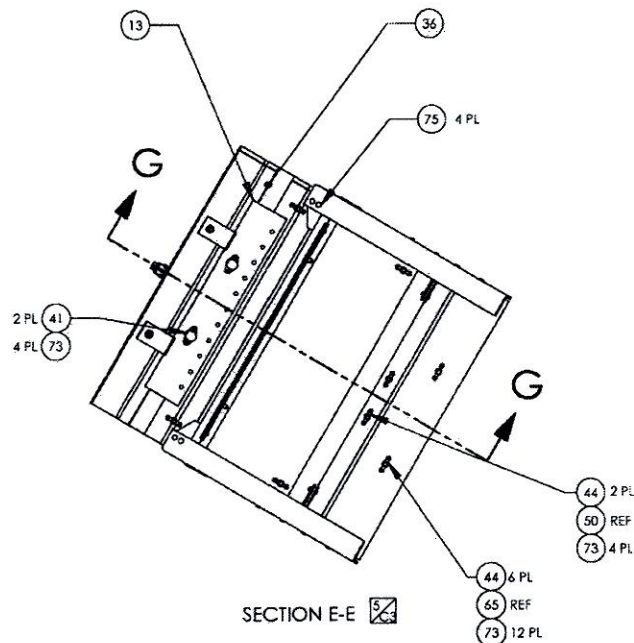
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval																	
Description Work Order Deviation		Disposition		Completed By																	
				Lead hand / Supervisor Approval Verification																	
				QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																			
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OTHER : _____																					

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ORIGINAL DATE 11/24/09		3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY A. CHAN		CHECKED BY D. BARKER	
DRAWING APPROVAL G. BARKER		APICAL INDUSTRIES, INC. DBA DART AEROSPACE	
CONTRACT NO.		EC135 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.01 2 PLACE DECIMALS ±.005 ANGLES ±.1°			
SHEET B	CAGE CODE 07AAZ6	QWG. NO. 647.7300	REV B
SCALE NONE		SHEET 6 OF 8	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

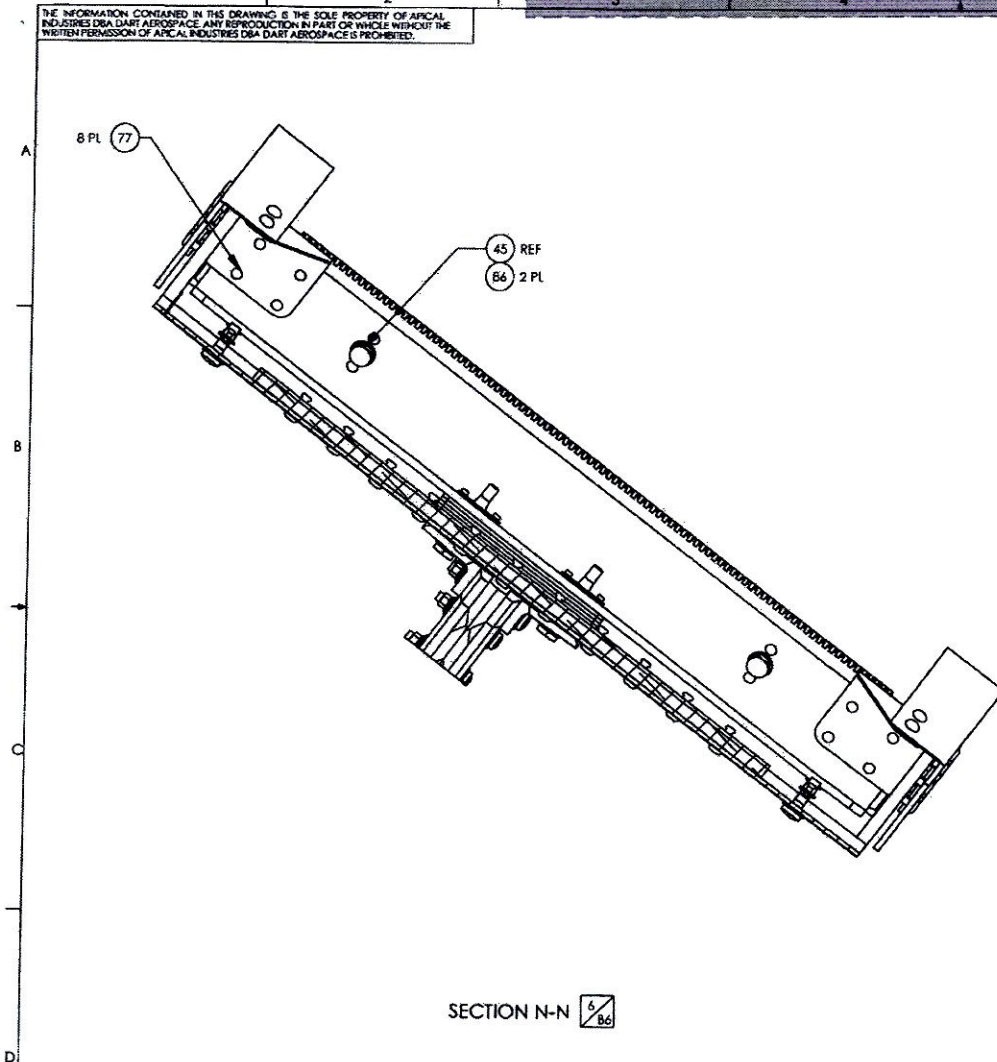
QA Closed: _____ Date: _____

Work Order update only ☐

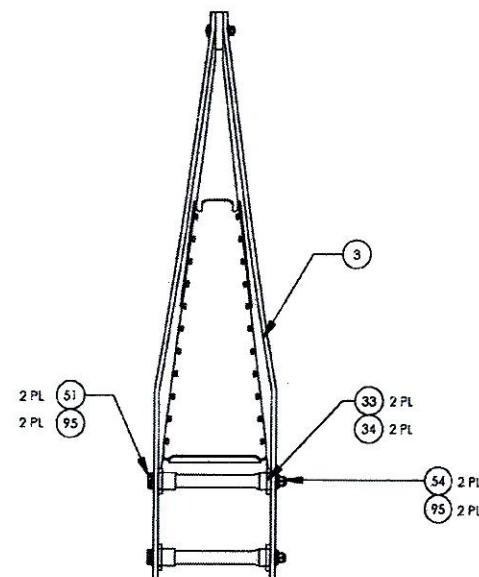
Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																													
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INBOARD →



TYP 2 PL

ORIGINAL DATE 11/24/08	DART AEROSPACE 3030 ENTERPRISE CT. SUITE A VISTA, CA, 92081 (760)-724-5300	
DRAWN BY A. GUAN	CHECKED BY J. BARNER	REV. B
DRAWING APPROVAL J. BRADY	EC135 CABLE CUTTERS KIT	
CONTRACT NO.	SEE CAGE CODE B 07MA26	DWG. NO. 647.7300
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ±.01 ANGLES ±.5°		SCALE NONE SHEET 7 OF 8

DQA: _____ Date: _____

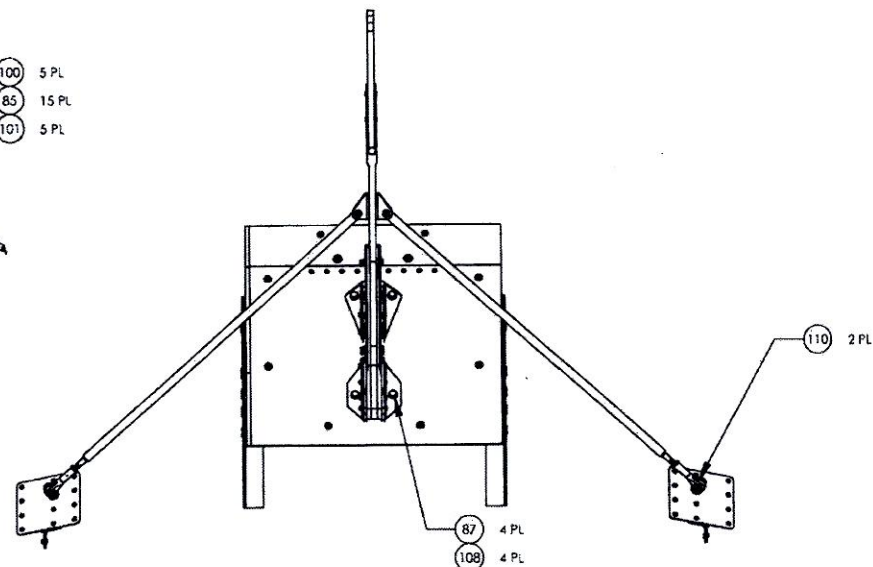
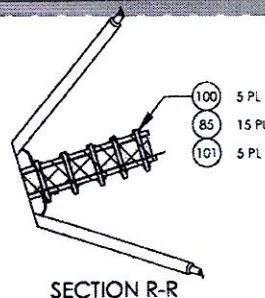
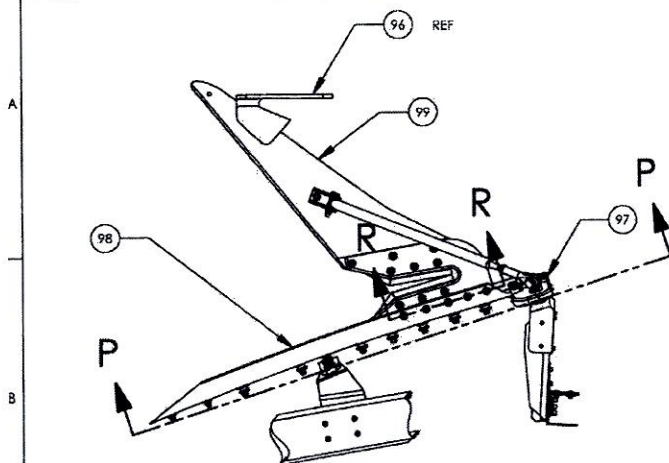
**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐			FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		
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DETAIL A $\frac{2}{B2}$ $\frac{8}{B}$ $\frac{9}{A}$

- 93 AR
- 92 AR
- 53 5 PL
- 56 5 PL
- 86 5 PL
- 71 5 PL

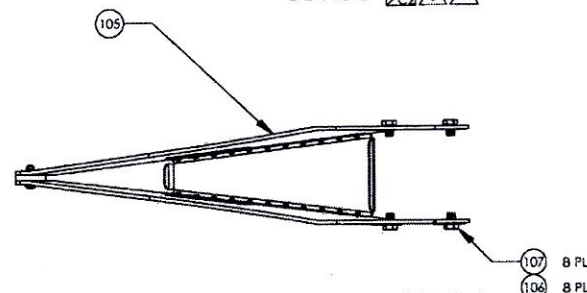
- 2 PL 64
- 2 PL 53
- 4 PL 86

- 2 PL 66
- 4 PL 86
- 2 PL 56
- 2 PL 53
- AR 92
- AR 93

- 56 4 PL
- 86 4 PL
- 53 2 PL
- 109 2 PL
- 92 AR
- 93 AR

SECTION P-P

DETAIL C $\frac{2}{C2}$ $\frac{8}{B}$ $\frac{9}{A}$



DETAIL D $\frac{2}{C2}$ $\frac{8}{B}$ $\frac{9}{A}$

ORIGINAL DATE 11/20/09		DART 3030 ENTERPRISE CT. SUITE A	
DRAWN BY A. QUAN		VISTA, CA. 92081	
CHECKED BY D. MAYER		(760) 724-5300	
DRAWING APPROVAL P. MAYO		APICAL INDUSTRIES INC. also DART AEROSPACE	
DATE 01/19/10		CONTRACT NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°			
SHEET B	CAGE CODE 07M26	DWG. NO. 647.7300	REV. B
SCALE NONE		SHEET 8 OF 8	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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OTHER : _____																					

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	LAST PROTOTYPE REVISION: #14		N/C
N/C	MEDIA RELEASE	01/25/09	P. BRANO
A	INCORPORATED ECHS 02P28, 03000, 03044, 03066	02/16/11	P. BRAYO
B	INCORPORATED ECHS 03023	02/07/16	P. BRAYO

39	601.3120	EYE BOLT	AN66-15A	
38	601.3121	EYE BOLT	AP66-5A	
57	601.3007	GROMMET	MS21266-2H	
36	601.3011	P SEAL		
35	647.3201	GROUNDING CABLE ASSY		
34	647.2511	NUT		
33	647.2510	SLEEVE		
32	647.1812	SHIM		
31	647.1811	SPACER		
30	647.1602	DOUBLER ASSY		
29	647.1914	BRACKET		
28	647.7822	EYE BOLT FITTING RH		
27	647.7821	EYE BOLT FITTING LH		
26	647.7818	Mounting Channel		
25	647.7820	CROSS BRACKET Aft		
24	647.7819	CROSS BRACKET FWD		
23	647.7918	BRACKET		
22	647.7917	BRACKET		
21	647.7916	BRACKET		
20	647.7915	BRACKET		
19	647.7914	BRACKET		
18	647.7913	DOUBLER		
17	647.7912	CUP		
16	647.7911	BRACKET		
15	647.7910	ANGLE BRACKET		
14	647.7012	STRUT BRACKET		
13	647.1810	NOSE DOOR DOUBLER		
12	647.1818	NOSE DOOR SPACER		
11	647.7201	STRUT ASSY		
10	647.7202	STRUT ASSY		
9	647.1815	GUSSET, RH		
8	647.1814	GUSSET, LH		
7	647.1915	SUPPORT ANGLE		
6	647.1913	TEE		
5	647.1610	WIPER DEFLECTOR, PWD		
4	647.1601	WIPER DEFLECTOR ASSY, Aft		
3	647.1701	SKID DEFLECTOR ASSY		
2	647.7501	LOWER CUTTER ASSY		
1	647.7401	UPPER CUTTER ASSY		
	647.7306	12/P2 REMOVABLE PROVISIONS KIT		
	647.7305	12/P2 FIXED PROVISIONS KIT		
	647.7304	EC135 12/P2 CABLE CUTTERS KIT		
	647.7303	REMOVABLE PROVISIONS KIT		
	647.7302	FIXED PROVISIONS KIT		
	647.7301	EC135 CABLE CUTTERS KIT		
FIN D	PART #	DESCRIPTION	MAT'L	SPEC

ORIGINAL DATE 04-25-78 DRAWING BY A. GUNH DRAWING & PERSONAL RECORDS OFFICE NO. 00123456 COMMENTS NO.		PARTS LIST DART AIRSPACE 3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (714) 724-5300 OFFICE HOURS: 8:00 AM - 5:00 PM													
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS .005 3 PLACE DECIMALS .001 ANGLES .001		EC135 CABLE CUTTERS KIT <table border="1"> <thead> <tr> <th>QTY</th> <th>CHGR CODE</th> <th>DWG. REF.</th> <th>REV.</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>074242</td> <td>647.7300</td> <td></td> </tr> <tr> <td>5</td> <td>0741AF - MCHGR</td> <td>35669</td> <td>0748</td> </tr> </tbody> </table>		QTY	CHGR CODE	DWG. REF.	REV.	8	074242	647.7300		5	0741AF - MCHGR	35669	0748
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8	074242	647.7300													
5	0741AF - MCHGR	35669	0748												

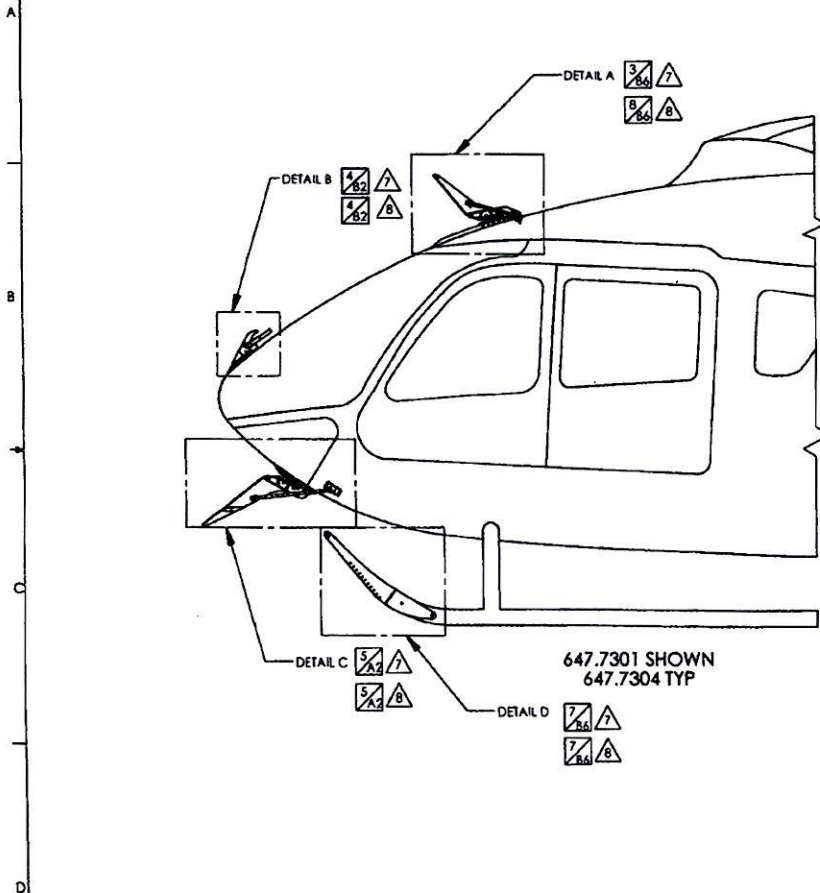
DART
AEROSPACE
APCAL INDUSTRIES, INC.
3030 ENTERPRISE CT.,
SUITE A
VISTA, CA. 92081
(760)-724-5300

EC135 CABLE CUTTERS KIT			
SIZE B	CAGE CODE 07M26	QTY. NO. 647.7300	REV. B
SCALE NONE		TWEIGHT 1.068	

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647.7301 SHOWN
647.7304 TYP

2	2				116	601.3902	EYE BOLT		
2	2				109	601.2910	SCREW	MS7039-1-18	
4	4				108	601.3963	BOLT	MS3520-4-4	
8	8				107	601.3654	BOLT	LN9027-08010	
8	8				106	601.3655	LOCK WASHER	LN9025-08020	
2	2				105	647.1702	SKID DEFLECTOR ASSY		
8	8	8	8	8	104	601.3214	CHERRY RIVET	CR2523-5-8	
24	24		24	24	103	601.3213	CHERRY RIVET	CR2522-4-4	
4	4		4	4	102	601.3212	CHERRY RIVET	CR2521-4-3	
5	5				101	601.1541	LOCKNUT	MS1843-5-8	
5	5				100	601.3962	SCREW	MS7039-1-18	
1	1				99	647.1404	CUTTER ASSY (UPPER)		
1	1				98	647.2114	UPPER U CHANNEL		
1	1				97	647.7823	CROSS BRACKET AFT		
1	1	1	1	1	96	647.5701	GPS MOUNT KIT		
7306	7305	7304	7303	7302	7301	FIND #	PART #	DESCRIPTION	MATL SPEC

ORIGINAL DATE
11/14/08
DRAWN BY
A. CUNY
CHECKED BY
D. HANSEN
DRAWING APPROVAL
J. MEYER
DATE
01/15/09
CONTRACT NO.
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE
2 PLACE DECIMALS 0.01
3 PLACE DECIMALS 0.005
ANGLES 0.1°

DART 3030 ENTERPRISE CT.,
SUITE A
VISTA, CA. 92081
(760) 724-5300
APICAL INDUSTRIES INC.
DBA DART AEROSPACE
EC135 CABLE CUTTERS KIT
REV. B 07/2016 DWG. NO. 647.7300
SCALE NONE SHEET 2 OF 8